

- 1 A Right.
- 2 Q -- subjective judgement, is it not?
- 3 A Yes.
- 4 Q And the FCC has no standard that says "this is an
5 unwatchable or unviewable signal and this is not."
- 6 A Not that I'm aware of.
- 7 Q Except, obviously to --
- 8 A Not --
- 9 Q -- a TASO 6 which is no signal at all.
- 10 A Right.
- 11 Q Now you, you said -- I believe it was your testimony
12 that you talked with Mr. Raines -- excuse me, Mr. Raines --
13 Mr. Moffitt, and that he did not use the training film from
14 Norfolk, Virginia to, to set forth these TASO -- am I pro-
15 nouncing that correctly? Is it TASO?
- 16 A TASO, I believe, is the way to say it.
- 17 Q TASO, okay -- these TASO readings?
- 18 A That's correct.
- 19 Q And do you know what he was using, what standard he was
20 using?
- 21 A Yes, he -- when he did this, the only thing he had to
22 go by was a description of the TASO ratings given to him by my
23 supervisor, James A. Dailey.
- 24 Q Okay.
- 25 A Because no tape was available at that time.

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 Q Okay, if I might refer you to KOKS Exhibit 6. I guess
2 it would be page 5 or 6; it's the second page dealing with
3 Mr. and Mrs. Smith, already admitted. See, this one here.

4 A All right.

5 Q Okay, that page, if, if -- it does not -- it makes
6 reference to a lawsuit filed by the -- against KOKS?

7 A Yes.

8 Q Did you -- Mr. Moffitt brief you about the status of
9 the lawsuit, if at all, prior to your, your visit to, to KOKS?

10 A I, I did hear from Mr. Moffitt, or Mrs. Raines, I don't
11 recall who, that there was a lawsuit filed, but that's all I
12 knew going in.

13 Q Okay, so you didn't know when you, you inspected the
14 station whether it had been resolved or not.

15 A I was told that they had filed a lawsuit. That's all I
16 was told.

17 Q Okay, now, if you look at the bottom of, of that page,
18 where it says summary?

19 A Um-hum.

20 Q Okay, it makes reference to a TV tuner, does it not?

21 A Yes, it does.

22 Q Okay, did you and Mr. Moffitt discuss this at all?
23 This particular --

24 A I believe --

25 Q -- mark?

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 A I believe we did, yes.

2 Q Okay, and what did Mr. Raines, Mr. Raines --
3 Mr. Moffitt have to say?

4 A He had just indicated that there was a problem with the
5 tuner, tuning in, I believe, one of the channels. I'm not
6 sure if it was -- affected all of them or just one. I, I --

7 Q It would have affected the tuning of, of Channel 8,
8 perhaps, does that refresh your memory?

9 A That may have been the channel, yes.

10 Q Okay, when he says the TV tuner is intermittent, what
11 does that mean to you? Does that mean anything to you?

12 A To me, that indicates -- the way I read that and the
13 way I remember the conversation with Mr. Moffitt, is TV tuners
14 sometimes will get dirty and you'll -- may turn a tuner to one
15 station one time and not get a picture at all, and the next
16 time it makes contact and you do get a picture.

17 Q Okay. Now, this, this is with older sets.

18 A Right, right.

19 Q With newer sets, you just punch out Channel 12, and
20 there's Channel 12. It's digital, right?

21 A Right.

22 Q And this would only be a problem with an older set
23 that's got a, a tuner.

24 A That's correct.

25 Q Okay, and the impact of having a tuner problem that's

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 "dirty," is not -- is that you would tune -- I think Channel 8
2 was the channel used, is that your testimony?

3 A I, I believe so.

4 Q Okay, you would tune Channel 8 one time, it would come
5 in fine, and the next time you would tune it and it wouldn't
6 come in at all or come in very unclearly or indistinctly, is
7 that correct?

8 A Correct.

9 Q Okay. Now, with respect to -- what does it take to fix
10 a tuner?

11 A I --

12 Q Do you have any idea? Don't know?

13 A No, I haven't dealt with TV repair.

14 Q Now, if -- let me ask this question on a, on a general,
15 theoretical level, and then perhaps on a personal level.
16 Blanketing, FM blanketing interference, affects TV stations,
17 is that correct? That's viewed on a, on a TV set and it
18 affects TV stations.

19 A It could affect the TV reception, yes.

20 Q Okay, and it also may have an impact on the reception
21 of radio stations, is that correct?

22 A That's correct.

23 Q Would FM blanketing interference have any impact on the
24 AM band of a radio station?

25 A Not that I'm aware of.

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 Q Okay, so if you went to a house and the -- if you were
2 to look at an AM or a radio set -- radio, and there were no AM
3 stations coming in, okay, would you conclude that the fact
4 that no AM stations were coming in was not the result of an FM
5 blanketing interference?

6 A I would have to check and see. There, there would be
7 some reason why no stations were coming in. I would have to
8 look into it and see --

9 Q But --

10 A -- what it was.

11 Q The, the question now was that -- you know, could that
12 be FM blanketing interference?

13 A I do not know.

14 Q Okay, then let's put this on a personal level. Have
15 you ever heard of FM blanketing interference wiping out an AM
16 band on a radio station?

17 A No.

18 Q Have you ever heard of FM blanketing interference
19 interfering with the reception of AM stations on a radio?

20 A No.

21 Q Okay, now, Mr., Mr. Ramage, prior to the time you went
22 to work for the FCC, what sort of training or experience did
23 you have?

24 A I graduated from Kansas State University in May of 1983
25 with a degree -- bachelor of science degree in electrical

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 | engineering, and then I went -- began work immediately --
2 | well, in September. I was not employed during the summer of
3 | '83 but I began work with the Commission September of '83, and
4 | then 10 months later I was sent to Norfolk, Virginia for a
5 | 3-month training course.

6 | Q Okay, I wanted to get to that training, training
7 | course. Okay, during your, your education as a, as an EE --
8 | that's correct, is it not?

9 | A Yes.

10 | Q And then I believe you testified you had a BA, or BS,
11 | in --

12 | A Yes, bachelor of science.

13 | Q Bachelor of science. They should give that to lawyers.
14 | Did -- and as part of electrical theory, did you cover the
15 | phenomenon of FM blanketing interference?

16 | A No.

17 | Q When you -- so as part of your electrical theory
18 | courses, FM blanketing interference was not mentioned?

19 | A No.

20 | Q Did you -- were there any courses that you took that
21 | described or, or taught you about the theory or the practical
22 | interference of any kind?

23 | A No.

24 | Q When you went to the -- your -- the FM school, I
25 | believe you -- FM school -- FCC school. You testified you

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D.C. Area 261-1902
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1 attended for 3 months?

2 A Three weeks.

3 Q Three weeks?

4 A Yes.

5 Q Was FM blanketing interference among the course -- the
6 subjects that you studied there?

7 A No.

8 Q Were there any manuals or -- TV repair manuals, maga-
9 zine articles, any sort of professional publications, or
10 anything else that you read that discussed or described FM
11 blanketing interference?

12 A No.

13 Q I believe you testified, Mr. Ramage, that you didn't --
14 you had no experience with TV repair, is that correct? You
15 had no professional --

16 A That's right.

17 Q -- or personal experience with TV repair.

18 A That's correct.

19 Q In other words, as a TV repairman, you had no training
20 as a TV repairman in either theory or practice, is that cor-
21 rect?

22 A That's correct.

23 Q Okay, when you went to -- I believe you testified it
24 was someplace in Iowa that you took part in an investigation
25 of blanketing complaints?

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Court Reporting Depositions
D.C. Area 261-1902
Balt. & Annap. 974-0947

1 A Yes.

2 Q Prior to the time that you made that investigation,
3 Mr. Ramage, had you had any experience with FM blanketing
4 interference at all?

5 A No.

6 Q And I believe you testified you had no training at that
7 point with respect to FM blanketing interference, you had no
8 FCC training.

9 A With particular respect to FM blanketing, no.

10 Q And I believe you testified that when you went to this
11 place in Iowa, you went to 10 homes?

12 A No, I don't recall how many homes we went to.

13 Q Was it, you know, 2, 4, 8, less than 10, more than 20,
14 or do you just not recall?

15 A It was in excess of five.

16 Q Okay, in excess of five?

17 A I believe so, yes.

18 Q But less than 10, less than 15?

19 A Probably less than 10.

20 Q Okay, and while you were in -- let's take Iowa first,
21 if we may.

22 A All right.

23 Q When you attended, or made this investigation of
24 Iowans, 5 to 10 homes, did you actually observe FM blanketing
25 interference?

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 A Yes.

2 Q Okay, how did you know it was FM blanketing
3 interference, if it all?

4 A We could tell the -- by having the station go off the
5 air, that the -- in this case we were dealing with reception
6 of another FM radio signal that was on across the channel, and
7 the station was interfering with the next, the next station,
8 and so we were dealing strictly with radio receivers that I
9 recall.

10 Q So you did -- you, you were not dealing at all with TV
11 receivers then?

12 A Not that I recall.

13 Q Okay, then you came to Poplar Bluff, to, to investigate
14 the -- these complaints of FM blanketing interference, is that
15 correct?

16 A Correct.

17 Q And I believe you testified that the homes that you
18 visited -- I believe there were 14; correct me if I'm wrong --
19 were from a list that was prepared for you, prepared for you
20 by the Mass Media Bureau, or some other agency of the FCC.

21 A Yeah, all of the homes that I visited were given to me
22 by the Mass Media Bureau.

23 Q And I believe you testified that you had no contact
24 with any of these homes prior to the time you visited them.

25 A I had called them up --

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 Q No, I mean before you came to Poplar Bluff as part of
2 your investigation, you had no contact with any of these
3 people.

4 A Prior to this investigation. I did call them before I
5 actually got to Poplar Bluff.

6 Q Okay. Okay, and they -- these people's names were
7 given to you and their telephone numbers, et cetera, on a list
8 that was prepared by the Mass Media Bureau.

9 A Yes.

10 Q And you have, you have no personal knowledge of how
11 that list was prepared.

12 A No.

13 Q Okay, prior to coming to Poplar Bluff, Mr., Mr. Ramage,
14 did -- had you had any experience with the field of any sort
15 of interference to a TV station?

16 A To a TV set?

17 Q Um-hum --

18 A Yes.

19 Q -- excuse me.

20 A Yes.

21 Q Okay, why don't you describe that experience.

22 A Routinely, I deal with interference problems with CB
23 radios, Citizen's Band radios --

24 Q Um-hum.

25 A -- amateur radios, land mobile radios to people's TV

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Court Reporting Depositions
D.C. Area 261-1902
Balt. & Annap. 974-0947

1 sets.

2 Q That's kind of the run of the mill sort of thing that
3 comes through to your office, isn't it?

4 A That's been a very routine function.

5 Q And you -- have you -- and as part of the investigation
6 have had an opportunity to actually go out and look at TV sets
7 that are receiving interference from land mobile, CB radios,
8 et cetera?

9 A Yes.

10 Q If the land mobile frequency is interfering with a TV
11 frequency --

12 A Um-hum.

13 Q -- how could you tell if you were watching a TV set?

14 A How could I tell there was a land mobile --

15 Q Um-hum.

16 A -- versus --

17 Q Anything else.

18 A -- anything else? I could tell that it would be a, a
19 land mobile, and CB, amateur, that type transmission, versus
20 electrical interference or blanketing interference because it
21 would be on and off. It would only be on when the person who
22 is transmitting is talking --

23 Q Um-hum.

24 A -- and it would be off when they're not talking and
25 listening. So that, that would tell me that it was a radio

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 operator versus something that's on steady. That would be
2 something else.

3 Q Okay, and -- but that, but that is something that is
4 distinctive. When you're looking at a set you can say, "CB
5 radio interference."

6 A Yes, or, or --

7 Q Or some kind of long range transmitter.

8 A -- some kind of two-way, two-way radio, yes.

9 Q Okay. In your, in your job, Mr. Ramage, or as part of
10 your duties, have you ever had opportunity to deal with other
11 sorts of interference to TV sets? For example, there's been
12 some testimony about the ghosting on TV sets and how that's
13 created.

14 A Yes.

15 Q And I believe you testified yesterday that ghosting --
16 you're familiar with the, the -- what ghosting is and how it
17 occurs, is that correct?

18 A Yes.

19 Q Have you ever had an opportunity to observe co-channel
20 interference on a TV set?

21 A I believe I have, yes.

22 Q Okay, now is that -- and that was part of your duties
23 with the FCC.

24 A Yes.

25 Q And what does co-channel interference look like on a TV

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D.C. Area 261-1902
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1 set?

2 A Again, it's similar to ghosting in that you see two
3 pictures trying to be viewed at the same time on the TV
4 screen. You'll see maybe -- usually you'll have a dominant
5 one and then one in the background, where you may actually see
6 the other figures moving around, and that's, that's usually
7 indicative of co-channel interference.

8 Q Okay. Looking at a TV set -- now this is strictly
9 viewing a TV set -- can someone look at a, at a TV set and
10 say, "that's ghosting" and have a different visual picture on
11 the TV set than someone is who is experiencing co-channel
12 interference?

13 A Yes.

14 Q Okay. So there, there is a, a visually different
15 depiction of that interference on a TV set?

16 A I -- and I believe yesterday I, I said something about
17 it could be two different TV signals for, like, co-channel --

18 Q Um-hum.

19 A -- ghosting, and there could be just ghosting from the
20 same television signal where it's reflecting and it's showing
21 up at two different times.

22 Q Right.

23 A And so you'll have kind of a shadow following every-
24 thing around because it's just a split second later than the
25 picture that's arrived first, at first.

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 Q Right.

2 A Versus co-channel, where it's two different pictures on
3 the screen.

4 Q Okay, so that the bottom line is that they're visually
5 distinctive; one can look at one and figure out what's going
6 on.

7 A Usually, yes.

8 Q In your experience, Mr. Ramage, people describe various
9 pictures as "snowy." Okay, what does "snowy" mean to you?

10 A "Snowy" is just a whole bunch of, usually, white dots
11 all over the screen that, that can look like snow. It's just,
12 just usually just white, and it's just all over the screen.

13 Q Okay --

14 A I believe they're blanketing the screen, usually,
15 fairly evenly.

16 Q Okay, let's not use the word "blanketing" here.

17 A All right.

18 Q Because --

19 A That was not intentional.

20 Q It's a sensitive word here.

21 A Okay.

22 Q If you were to see what is -- you've just described as
23 "snow" on a TV set, okay, has the grade -- the picture has
24 degraded because of that phenomenon you just described as
25 "snow," what would you generally attribute that snow to?

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 A To a weak TV signal.

2 Q Okay, now let's go to the -- now we can talk about
3 blanketing, okay? All right, I believe you just testified
4 that you had, as part of your, your FCC duties, you had not
5 actually investigated a, a situation with FM blanketing
6 affecting a TV set prior to this Poplar Bluff one, is that
7 correct?

8 A That's correct.

9 Q Prior to coming to Poplar Bluff, had you ever seen the
10 effect of FM blanketing on a TV set?

11 A Not that I recall.

12 (Off the record.)

13 BY MR. DUNNE:

14 Q As a result of coming -- before you came to Poplar
15 Bluff, did you have an opportunity to, either through profes-
16 sional reading or discussions with Mr. Moffitt, to understand
17 what FM blanketing interference might look like on a TV set?

18 A From my, my understanding, just from my work, is
19 that -- was that FM blanketing was similar to other overload
20 situations involving land mobile or CB in that when you get
21 such a strong signal -- paging companies that are -- are
22 another one that we have a lot of dealings with -- where you
23 just have a strong signal nearby that causes interference
24 which is not actually interfering with the TV signal that's
25 coming in, it's just overloading the receiver. So I have had

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 a lot of experience in that regards, but not with particularly
2 being FM to a TV set.

3 Q Okay, well, once again, when you talked about the --
4 exactly, the overload situation to -- does, does what you see
5 on a TV set, is the interference particular in any way? Can
6 you tell that kind of interference from a weak signal or a
7 co-channel interference?

8 A Again, when it's two-way, it comes and goes only when
9 the two-way transmitter is transmitting. You, you won't hear
10 it when they're not transmitting.

11 Q Okay, but --

12 A You won't see it, rather.

13 Q Okay, I, I want to focus your attention on mainly what
14 you see.

15 A What you see --

16 Q What you see on the screen when two-way radio comes
17 over and creates the same kind of overload situation on the
18 receiver that FM blanketing does.

19 A Typically, you'll see some herring -- what we call
20 herringbone patterns on the screen.

21 Q Okay, and if, if the overload is, is very strong, Mr.,
22 Mr. Ramage, what happens to the TV signal?

23 A It could blank out the screen completely.

24 Q Okay. So it's fair to say, from your experience of
25 other overload situations but not necessarily FM blanketing

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 because you have no experience prior to this point, that an
2 overload interference essentially blanks out the channel and
3 creates a herringbone pattern across the screen.

4 A Typically, yes.

5 Q Okay. Now, is that herringbone pattern fairly distinc-
6 tive?

7 A It varies with the strength. Sometimes it can just be
8 a faint stuff in the background you can't -- until you get
9 real close and look at it, you may not even know it's, it's a
10 herringbone pattern. All you see is something in the back-
11 ground, maybe some lines wiggling.

12 Q Okay, but -- for -- if you're looking at a TV screen,
13 it's fairly easy, is it not, to determine that this is not
14 ghosting or co-channel interference; that this is an overload
15 interference?

16 A Yes.

17 Q Okay, if I may refer your attention to page 4 of KOKS
18 Exhibit No. 6. It's the, it's the page we referred to a
19 little bit earlier talking about --

20 A TASSO ranges?

21 Q No, this is Mr., Mr. Moffitt's visit to the Smith's.
22 I'm sorry. I'm sorry, it's the second page of the report on
23 13.

24 A This one here?

25 MR. DUNNE: Your Honor, may we go off the record for a

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 moment?

2 JUDGE STIRMER: Off the record.

3 (Whereupon, a brief recess was taken.)

4 MR. DUNNE: Apologize for the delay.

5 BY MR. DUNNE:

6 Q Okay, I'd like for you to -- refer you to that
7 paragraph 2, if we can.

8 A Okay, page --

9 Q Excuse me, page 3.

10 A Page 3.

11 Q And I'd like to refer you to the fourth, the fourth
12 paragraph.

13 A Yes.

14 Q Are you looking at that? The homes you visited were
15 all fairly close to the highway patrol station, were they not?

16 A Several of them were, yes.

17 Q Okay. And did -- while you were there, is -- in your
18 experience, is two-way or other interference close to a high-
19 way patrol station or a police substation a fairly common
20 occurrence? In your experience --

21 A Yes.

22 Q -- not necessarily in this situation.

23 A Yes.

24 Q And why is that, Mr. Ramage?

25 A Again, you have a strong transmitter that's overloading

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 nearby receivers, and the highway patrol has -- tends to have
2 high-powered transmitters.

3 Q Okay, and I believe you described this a moment ago
4 that this sort of two-way interference is an overload phenome-
5 non, is that correct?

6 A In some cases. There are so -- also two-way trans-
7 mitter paging in highway patrol that are on a frequency that
8 is very near what we call the "IF" or the internal frequency
9 of the TV set.

10 Q Ah-hah.

11 A Which can also -- when it affects -- if it hits close
12 enough to that frequency, you can interfere just as if it's
13 interfering with the TV signal.

14 Q Okay, when you say "if it" -- let's, let's go -- let me
15 ask the first question. We'll return to that IF, IF situa-
16 tion, Mr. Ramage. When you have that interference from a
17 high-powered receiver like the highway patrol station, is what
18 you see on the -- what do you see on the screen? I think you
19 testified two-way overload looks like a herringbone pattern.

20 A You tend to see some herringbone and lines.

21 Q Okay.

22 A Or bands.

23 Q FM blanketing is another example of an overload situa-
24 tion, is that correct?

25 A Correct.

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D.C. Area 261-1902
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1 Q Okay, so the characteristic interference that we would
2 see in a set from FM blanketing interference vis-à-vis two-way
3 radio interference that causes overload would be essentially
4 the same, is that correct?

5 A Normally, the same, yes.

6 Q And let's --

7 JUDGE STIRMER: Except one would be intermittent and
8 one wouldn't.

9 WITNESS: Correct.

10 JUDGE STIRMER: And the intermittent one would be from
11 the two-way radio.

12 WITNESS: Correct.

13 JUDGE STIRMER: All right.

14 BY MR. DUNNE:

15 Q Okay, let's go to the, the IF thing you mentioned just
16 a moment ago, all right? The IF thing, the IF beat inter-
17 ference, I think, is what you described.

18 A Um-hum.

19 Q Would you describe for us how that occurs?

20 A IF frequencies in TV sets are approximately 43 mega-
21 hertz, and so if, if you hit that frequency, the signal will
22 come directly into the set.

23 Q When you say "the signal," what signal are you refer-
24 ring to?

25 A In any radio signal that will -- is approximately the

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 same frequency as the internal frequency or the TV frequency
2 you're trying to receive, it will interfere with the picture
3 or, or the audio, or whatever frequency you're interfering
4 with. So if it's the IF frequency in the TV set, it can, it
5 can totally wipe out the picture, and it will jump around just
6 as the, as the guy is talking, it will -- it'll kind of
7 reflect the talk. You're seeing this -- as you're seeing,
8 like, this --

9 Q Um-hum.

10 A -- the screen could just jump like this, if you can
11 visually picture the screen as jumping as someone talks, in
12 the same type of rhythm as the person who's talking. You, you
13 will get some, some interference like that, or the lines will
14 flash up there at that time, or you will see the -- the inter-
15 ference will, will usually correspond with the transmissions
16 that you're hearing unless it's very, very strong, in which
17 case it may just totally blank out the screen for the duration
18 of the, the transmission.

19 Q Okay. Now, I think you've, you've just said that the
20 IF beat frequency in the TV set is 43 megahertz?

21 A Approximately.

22 Q Okay, may I refer your -- refer you to that paragraph 4
23 on page 3?

24 A Yes.

25 Q What is the frequency of the highway patrol?

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D.C. Area 261-1902
Balt. & Annap. 974-0947

1 A It's 42 megahertz.

2 Q So that's very close, is it not?

3 A That's very close, yes.

4 Q And it would be -- would it be your guess, or your,
5 your opinion, that it would be likely to cause interference to
6 TV sets close to the highway patrol station?

7 A Yes, very likely.

8 Q Now, KOKS broadcasts on 89.5, is that correct?

9 A I believe so, yes.

10 Q Now, there was some testimony a couple of days ago,
11 admittedly it was not your own, that there is a possibility
12 the KOKS frequency combined -- broadcast frequency combining
13 with the highway patrol frequency to -- somehow the products
14 of these two signals kind of get joined in the TV set. Am I
15 making sense at all? Is that possible?

16 A Yes, it's possible.

17 Q Okay, can you describe for us how that occurs?

18 A TV sets, they, they have a combiner in them which will
19 take the sum and difference of frequencies. So if you took 42
20 megahertz and 89.5, the TV set will, will receive those and
21 create a signal within it that is the sum of both of those
22 together and the difference of those two, and so that there
23 could be signals that reach the TV set that are a mixture of
24 those, those two signals. The TV set is receiving at all
25 times all the signals that it, it can receive, and it, and it

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Court Reporting Depositions
D.C. Area 261-1902
Balt. & Annap. 974-0947

1 mixes them together in a mixer and creates the -- somehow
2 it's -- well, I don't say somehow, but the TV picture --
3 that's what the tuner does, that it tunes to specific frequen-
4 cies it's looking for, so that it can weed out all those
5 others.

6 Q Let me ask you if -- would a digital -- monitors out
7 with a digital tuner be less likely to receive the sum and
8 difference kind of interference than one with a regular tuner?

9 A A -- the, the tuner itself isn't receiving it. It's,
10 it's just selecting --

11 Q Right.

12 A -- out of the mixer, so it would -- it shouldn't make
13 much of a difference. I, I don't know that there's that much
14 difference between them, but I'm not a, a TV repair expert or
15 a TV expert.

16 Q Okay, based on your experience with this kind of sum
17 and difference interference --

18 A Um-hum.

19 Q -- the -- if I understand your testimony correctly,
20 Mr. Ramage, the thing, the frequency, that actually interferes
21 with the TV set is the lower frequency not the higher, is
22 that, is that accurate? That's the thing that breaks --
23 that's close?

24 A If it's close to any of the frequencies this TV has to
25 have to operate --

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1 Q Like 43 megahertz.

2 A Like 43 megahertz -- it will interfere at any time if
3 it hits that 43 megahertz frequency or any times it's inter-
4 fering with the channel you're trying to tune to.

5 Q Um-hum. Okay. Let's see if have this. Now, with the
6 sum and difference -- I use that as a shorthand for the, for
7 the interference you just described, Mr. Ramage.

8 A Okay.

9 Q With the sum and difference interference, what if
10 anything is one likely to see or hear on the TV screen? Would
11 it be the same sort of interference you'd receive with
12 strictly two-way radio interference?

13 A I believe it would be, yes.

14 Q Okay, might it be possible for the audio of the radio
15 station to be heard during the sum and difference interference
16 phenomenon?

17 A During the sum and difference interference?

18 Q Um-hum.

19 A Normally not.

20 Q But it is possible.

21 A I, I'm not sure.

22 Q Okay, you've had no experience with such?

23 A I've had no experience, that's right.

24 Q But you have had experience with two-way radio inter-
25 ference and this kind of sum and difference interference.

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1 A Yes.

2 JUDGE STIRMER: To what extent does the power of the,
3 for example, two-way radio as opposed to an FM radio station
4 affect the possibility of causing interference to local tele-
5 vision receivers? For example, what's the power of KOKS?

6 WITNESS: It's effective radiated power, I believe, is
7 100 kilowatts.

8 JUDGE STIRMER: And the power of that local --

9 WITNESS: Police station?

10 JUDGE STIRMER: -- police station --

11 WITNESS: Is --

12 JUDGE STIRMER: -- is 15 kilowatts.

13 WITNESS: I think it's --

14 MR. SHOOK: Your Honor, I would note for the record
15 that the report simply states that it's authorized at 15
16 kilowatts.

17 JUDGE STIRMER: All right, it's authorized 15 kilo-
18 watts. Now, to what extent would the different powers from
19 those two stations impact a television station?

20 WITNESS: It, it would depend on how close you are to
21 one or the other.

22 JUDGE STIRMER: Would it be -- would there be a greater
23 likelihood that the 100,000 watt station would impact, or have
24 a greater effect, than the 15 kilowatt station?

25 WITNESS: It depends on where they're at.

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